CORRES. CONTROL
INCOMING LTR NO.

3215 RF 91

DUE DATE 10-16-91

ACTION Kersh

DIST.	LTR	ENC
BENJAMIN, A.		
BRETZKE, J.C.		
BURLINGAME, A.H.		
COPP, R.D.		
CROUCHER, D.W.		
DAVIS, J.G.		
EVERED, J.E.	ACT	
FERRERA, D.W.		
FERRIS, L.R.		
FRAIKOR, F.J.		
FRANCIS, G.E.		
GOODWIN, R.		
HANNI, B.J.		
HEALY, T.J.		
IDEKER, E.H.		
JENS, J. P.		
KERSH, J.M.	X	X
KIRBY, W.A.		
KRIEG, D.		
KUESTER, A.W.		
LEE, E.M.		
MAJESTIC, J.R.		
MARX, G.E.		
MATHEWS, T.A.		
MEURRENS, B.E.		
MORGAN, R.V.		
PIZZUTO, V.M.		
POTTER, G.L.		
SAFFELL, B.F.		
SANDLIN, N.B.		
SWANSON, E.R.		
WIEBE, J.S.		
WILKINSON, R.B.		
WILSON, J.M.		
YOUNG, E.R.		
ZANE, J.O.		
Nesta S	X	X
Wilson R	X	X
CORRES CONTROL	x	x
TRAFFIC		

Reviewed for Addressee
Corres. Control RFP
10-1-91

DATE BY

Ref Ltr. #

United States Government — Department of Energy

Rocky Flats Office

Memorandum

OCT 1 8 06 AM '91

EG&G
ROCKY FLATS PLANT
CORRESPONDENCE CONTROL

SEP 30 1991

ERD:BKT:8162

Floodplain Assessment and Public Notice for South Walnut Creek, Operable Unit No. 2

J. M. Kersh, Associate General Manager
Environmental Restoration and Waste Management
EG&G Rocky Flats, Inc.

Please find attached copies of a floodplain assessment and a public notice for the floodplain action resulting from the interim measure/interim remedial action taking place along South Walnut Creek at OU 2. Note that a June 11, 1991 letter (ERD:SG:4396) addressed to you requested the following:

1) the notice for the Federal Register and public comment was to be rewritten to reflect that the action has already occurred, and

2) a floodplain assessment needs to be prepared in accordance with 10CFR1022.12.

We again request that the notice for the Federal Register be rewritten to reflect that the action has already occurred. (Note the use of "will" on lines 7, 10, 12 and 13 of paragraph one, page one, and on line 5 of paragraph two, page one. Also, note the use of "consists of" on line 1, paragraph two, page 2.) In addition, note that paragraph three on page two is identical to paragraph two on page one and that paragraph four on page two is essentially the same as the last portion of paragraph one on page one. This redundancy should be eliminated.

With regard to the floodplain assessment, note that 10CFR1022.12(a)(2) requires that the positive and negative, direct and indirect, long-term and short-term effects of the action on the floodplain be discussed. In addition, the effects of the action on lives and on natural and beneficial floodplain values be evaluated. Since none of these topics are addressed in the current floodplain assessment, we request that it be revised to specifically incorporate each of these topics.

RF-46522 (Rev. 6/91)

A-OU02-000022

We request that the revised notice for the Federal Register and the floodplain assessment be submitted to to DOE RFO ERD no later than October 16, 1991. Should you or your staff have any questions or concerns, Bruce Thatcher of my staff may be contacted at 966-3532.

David P. Simonson
Assistant Manager
for Environmental Management

Attachment

cc w/Attachment:
F. Lockhart, DOE/RFO
R. Schassburger, DOE/RFO
S. Grace, DOE/RFO
B. Thatcher, DOE/RFO
S. Nesta, EG&G/RF
B. Wilson, EG&G/RF

Attachment 1

Draft Text for Floodplain Assessment for Construction of OU 2 (Walnut Creek) Interim Measure/Interim Remedial Action

FLOODPLAIN ASSESSMENT FOR THE OU 2 (SOUTH WALNUT CREEK) INTERIM MEASURE/INTERIM REMEDIAL ACTION

Project Description

The Department of Energy (DOE) proposes to construct an interim measure/interim remedial action (IM/IRA) under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and Resource Recovery and Conservation Act (RCRA) involving construction of a system to collect, pump and treat surface water in the upper reach of South Walnut Creek in OU 2 (903 Pad, Mound and East Trenches) at DOE's Rocky Flats Plant (RFP) north of Golden, CO. OU 2 is located immediately southeast of the developed area of RFP in the Plant's buffer zone. A general plan of the IM/IRA is shown in Figure 1. The system will consist of three covered concrete boxes (identified as surface water collection points SW 59, SW 61 and SW 132 in Figure I), each approximately two feet wide by four feet long by two feet high, to accumulate water. Two of the boxes (SW 61 and SW 132) will be located in the stream while SW 59 will be located approximately twenty feet away from the stream at a seep. As these collection points accumulate water, automatic pumps will be periodically activated and transfer the water up the adjacent hillside through double-walled, insulated, above-ground pipes to a treatment plant. The treatment plant will be located outside RFP's Security Controlled Area, just north of the East Access Road. After treatment, the water will be discharged to South Walnut Creek at a point immediately downstream of SW 132.

While a detailed floodplain study of the relevant reach of South Walnut Creek has not yet been completed, location of the collection facilities in or near the drainageway makes it virtually certain that at least two of the collection boxes and a length of piping will be located within the South Walnut Creek floodplain. Construction of the collection boxes, installation of the piping and operation of the pumping system will constitute the extent of actions within the floodplain.

Floodplain Effects

The concrete collection boxes, supports for the above-ground pipes and the pipes themselves may present some barrier to the flow of water in case of a flood event. Immediately upstream from SW 59 are two culverts that carry South Walnut Creek under the security fence around the Protected Area. Immediately downstream of SW 132 is a pair of culverts that carries the Creek under a road. The culverts upstream of SW 59 have security devices on them to prevent unauthorized entry to the Protected Area. Those devices, plus the fact that the Creek at this point drains only unvegetated, developed areas of the RFP, reduce the likelihood of a significant amount of debris entering the project area and being trapped by the boxes and piping. The effect of the boxes and piping on the height and width of the flood plain are believed to be insignificant. This length of the South Walnut Creek basin is very constrained because of the natural slopes of the drainage and the presence of large barriers in the form of roads crossing the Creek immediately upstream and downstream of the project area. Since 1) there are no other constructions in the floodplain area except the outfall from the RFP sewage treatment plant which enters the Creek below SW 132, and 2) the more likely factor in raising the floodplain elevation is the size of the existing culverts below SW 132, it is believed that the presence of project facilities will have very little, if any, effect on the floodplain and that any such effect would cause no damage to any property or elements of the natural environment

Alternatives

No Action Alternative

DOE is required under CERCLA and its Interagency Agreement with the Environmental Protection Agency (EPA), and the Colorado Department of Health (CDH) to remediate surface waters at OU 2. The No Action Alternative would place DOE in violation of CERCLA and its Agreement with regulatory agencies and so is dismissed as unreasonable.

Alterative Collection Strategies

The portion of the project that is in the floodplain is the water collection system. In order to remediate the OU 2 South Walnut Creek surface waters, they must be collected and transported away from the stream to a treatment facility. Three collection alternatives were considered. The first is collection of surface waters at or near the source. This technique uses diversion structures at the seep or in-stream stations to divert the water into collection sumps. This method was agreed to by DOE, EPA and CDH early in 1990 and is the method proposed for use.

A second method of water collection is by ground water withdrawal using an upgradient well array or French drain. This technique lowers the groundwater table and eliminates seepage, allowing separation of contaminated groundwater (seepage) from surface water runoff. However, the hydrogeology at OU 2 is not adequately understood to design an effective groundwater withdrawal system. Consequently, collection of South Walnut Creek basin surface waters by groundwater withdrawal is dismissed as not feasible at this time. Such a proposal was made in 1989 in an earlier IM/IRAP and was rejected by EPA & CDH.

The third method of water collection considered is to allow the contaminated surface water to flow through the South Walnut Creek drainage into Pond B-5 from which it would be withdrawn with other waters and treated. This system has three drawbacks. First, there is the potential of transferring the surface water contaminants to ground waters within the South Walnut Creek basin via infiltration. Secondly, release of volatile organic compounds to the atmosphere would occur while the surface water is in transit to the Pond. Finally, allowing South Walnut Creek surface waters to mix with other waters retained in Pond B-5 would generally increase the volume of dilute contaminated water at RFP that may require treatment. For these reasons, collection of South Walnut Creek surface waters at Pond B-5 is eliminated as a desirable alternative.

Text for *Federal Register* Notice of an Action-In-Process in a Floodplain for OU 2 (Walnut Creek) Interim Measure/Interim Remedial Action

AGENCY:

Department of Energy

ACTION:

Notice of an Action-in-Process in a Floodplain

SUMMARY:

The Department of Energy issues this notice of an action that is underway in a floodplain. The action is construction of an interim measure/interim remedial action (IM/IRA) under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and the Resource Conservation and Recovery Act (RCRA), involving building a system to collect, pump and treat surface water in the upper reach of South Walnut Creek in OU 2 (903 Pad, Mound and East Trenches) at DOE's Rocky Flats Plant (RFP) north of Golden, CO. OU 2 is located immediately southeast of the developed area of RFP in the Plant's buffer zone. A general plan of the IM/IRA is shown in Figure 1. The system will consist of three covered concrete boxes (identified as surface water collection points SW 59, SW 61 and SW 132 in Figure I), each approximately two feet wide by four feet long by two feet high, to accumulate water. Two of the boxes (SW 61 and SW 132) will be located in the stream while SW 59 will be located approximately twenty feet away from the stream at a seep. As these collection points accumulate water, automatic pumps will be periodically activated and pump the water up the adjacent hillside through double-walled, insulated, above-ground pipes to a treatment plant. The treatment plant will be located outside RFP's Security Controlled Area, just north of the East Access Road. After treatment, the water will be returned to South Walnut Creek at a point immediately downstream of SW 132.

While a detailed floodplain study of the relevant reach of South Walnut Creek has not yet been completed, location of the collection facilities in or near the drainageway makes it virtually certain that at least two of the collection boxes and a length of piping will be located within the South Walnut Creek floodplain. Construction of the collection boxes, installation of the piping and operation of the pumping system will constitute the extent of actions within the floodplain.

The concrete collection boxes, supports for the above-ground pipes and the pipes themselves may present some barrier to the flow of water in case of a flood event. Immediately upstream from SW 59 are two culverts that carry South Walnut Creek under the security fence around the Protected Area. Immediately downstream of SW 132 is a second culvert that carries the Creek under a road. The culverts upstream of SW 59 have security devices on them to prevent unauthorized entry to the Protected Area. Those devices, plus the fact that the Creek at this point drains only unvegetated, developed areas of the RFP, reduce the likelihood of a significant amount of debris entering the project area and being trapped by the boxes and piping. The effect of the boxes and piping on the height and width of the flood plain are believed to be insignificant. This length of the South Walnut Creek basin is very constrained because of the natural slopes of the drainage and the presence of large barriers in the form of roads crossing the Creek immediately upstream and downstream of the project area. Since 1) there are no other constructions in the floodplain area except the outfall from the RFP sewage treatment plant which enters the Creek below SW 132, and 2) the more likely factor in raising the floodplain elevation is the size of the existing culvert below SW 132, it is believed that the presence of project facilities will have very little, if any, effect on the floodplain and that any such effect would cause no damage to any property or elements of the natural environment.

The action is the collection, pumping, treatment and discharge of certain surface water in the South Walnut Creek basin of Operable Unit (OU) 2 at DOE's Rocky Flats Plant (RFP) north of Golden, CO. The action is taking place under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), the Resource Conservation and Recovery Act (RCRA), and DOE's Intergovernmental Agreement with the Environmental Protection Agency and the Colorado Department of Health, as part of DOE's overall program the remediate the RFP site.

The Action consists of the installation of three concrete water collection boxes, each about two feet wide, four feet long and two-feet high, in or near the upper reach of South Walnut Creek immediately east of RFP's Security Controlled Area; construction of pipelines from these collection facilities to a water treatment plant located on top of the hill south of South Walnut Creek and north of the East Access Road; construction of the water treatment plant; and construction of a return water line from the water treatment plant to South Walnut Creek.

While detailed floodplain studies of the relevant reach of South Walnut Creek have not yet been completed, location of the collection facilities in or near the drainageway makes it virtually certain that at least two of the collection boxes and a short distance of the piping will be located within the South Walnut Creek floodplain. Construction of the collection boxes, installation of the piping and operation of the pumping system will constitute the extent of actions within the floodplain.

The three covered concrete water collection boxes are identified as surface water collection points SW 59, SW 61 and SW 132. Two of the boxes (SW 61 and SW 132) will be located in the stream while SW 59 will be located approximately twenty feet away from the stream near a seep. As these collection points accumulate water, automatic pumps will be periodically activated to pump the water up the adjacent hillside through double-walled, insulated, above-ground pipes to a treatment plant. After treatment, the water will be returned to South Walnut Creek at a point immediately below SW 132.